

Art Unit: \*\*\*

4. A method according to claim 1 wherein the magnitude of the small linear displacements applied to the surfaces is substantially equal to the product of the diameter of the colloidal spheres and the number of crystalline layers in the crystal.

5. A method according to claim 1 wherein the surfaces are displaced with respect to each other in an equilateral triangle.

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6. A method according to claim 1 wherein the minimum volume fraction of monosized colloidal spheres is 0.49.

7. A method according to claim 1 wherein the radius of the monosized colloidal spheres is in the range 0.01pm to 100pm.

8. A method according to claim 1 wherein the radius of the monosized colloidal spheres is in the range 0.05pm to 10pm.

9. A method according to claim 1 wherein the material used for the colloidal spheres is at least one of a polymer, a non-linear material, a magnetic material, a metal, a semiconductor, glass doped with an active dye, polymer doped with an active dye, silica.